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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/785,385	02/16/2001	Charles J. Jacobus	CYB-07102/03	2386

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GIFFORD, KRASS, GROH, SPRINKLE,
PATMORE, ANDERSON & CITKOWSKI
Suite 400
280 N. Old Woodward Ave.
Birmingham, MI 48009

EXAMINER

LESNIEWSKI, VICTOR D

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 07/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/785,385

Applicant(s)

JACOBUS, CHARLES J.

Examiner

Victor Lesniewski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

1. This application has been examined.
2. Claims 1-23 are now pending.

Information Disclosure Statement

3. The IDS filed on 3/27/2001 (Paper #2) has been considered.

Specification

4. The disclosure is objected to because of the following informalities:
 - Reference to Vange et al. (U.S. Patent Number 6,050,098) throughout the disclosure is incorrect as a U.S. Patent under this number including the named inventor cannot be identified.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1 and 3-6 are rejected under 35 U.S.C. 102(e) as being anticipated by DeSimone et al. (U.S. Patent Number 6,138,144), hereinafter referred to as DeSimone.

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7. DeSimone has disclosed:

- <Claim 1>

A distributed network computing environment, comprising: a plurality of clients communicating within a multicast cloud using a stream-specific behavior to implement a groupware application (column 4, lines 47-54); and one or more network routing modules or router embedded applets operative to support the stream-specific behavior in addition to normal packet-routing (column 4, lines 59-61).

- <Claim 3>

The environment of claim 1, wherein the application is a client selectable and controllable data service associated with the distribution of audio, video, or other digital signal stream (column 1, lines 26-34).

- <Claim 4>

The environment of claim 1, wherein the clients enter, leave, and interact with the cloud through a lobby manager (column 5, lines 5-23).

- <Claim 5>

The environment of claim 4, wherein the lobby manager is further operative to validate the application in terms of compatibility and download data to correct for deficiencies (column 7, line 59 through column 8, line 12).

- <Claim 6>

6. The environment of claim 4, wherein the lobby manager is further operative to simultaneous support multiple clouds through multicast or replicated unicast protocols (column 3, lines 27-36).

Since all the limitations of the invention as set forth in claims 1 and 3-6 were disclosed by DeSimone, claims 1 and 3-6 are rejected.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 7-9, 11, and 14-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeSimone, as applied above, in view of Waters et al. (U.S. Patent Number 5,841,980), hereinafter referred to as Waters.

10. DeSimone disclosed a multicast capable IP network maintaining client terminals on a multimedia conference. In an analogous art, Waters disclosed a distributed communication network for multi-user applications. Just as with DeSimone's invention, Waters discussed the benefits of a multicast system and the usage of the Asynchronous Transfer Mode. See column 1, lines 44-62.

11. Concerning claim 11, DeSimone did not explicitly state that his system could utilize traffic adjustment means to reduce communications between client terminals and the cloud. However, Waters focuses on reducing the bandwidth loading of a multi-user application operating over a communication network. See column 5, lines 6-32. Waters's use of culling rules in this manner has been admitted by the applicant. Since the inventions encompass the same field of endeavor, it would have been obvious to one of ordinary skill in the art at the time

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of the applicant's invention to modify the system provided by DeSimone by adding the ability to implement message culling for reduced client-cloud communications as provided by Waters.

This would make sense because it would provide a system such as DeSimone's with a more optimal interaction among its multiple users. See column 4, line 65 through column 5, line 3.

12. Concerning claim 17, DeSimone did not explicitly state the use of host platforms. However, Waters's system does utilize host computers. Since the inventions encompass the same field of endeavor, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system provided by DeSimone by adding the use of host platforms as provided by Waters. This would make sense because it would allow for greater flexibility in management of the client terminals.

13. Thereby the combination of DeSimone and Waters discloses:

- <Claim 7>

The environment of claim 1, wherein the routing modules implement application-specific message culling to reduce client-cloud communications (Waters, column 9, lines 59-63).

- <Claim 8>

The environment of claim 7, wherein the message culling includes message omission, rerouting, and other quality-of-service modifications (Waters, column 10, lines 36-50).

- <Claim 9>

The environment of claim 7, wherein the application communicates internal state changes into the cloud through an API (DeSimone, column 2, lines 15-20).

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- <Claim 11>

A distributed network computing environment, comprising: a network-enabled client application (DeSimone, column 4, lines 47-54); at least one lobby manager that facilitates communications between the client application and a federation (DeSimone, column 5, lines 5-23); and one or more network routing modules or router embedded applets that implement application-specific message culling to reduce the communications with the federation (Waters, column 9, lines 59-63).

- <Claim 14>

The environment of claim 11, wherein the application is a client selectable and controllable data service (DeSimone, column 1, lines 26-34).

- <Claim 15>

The environment of claim 14, wherein the data service includes audio, video, or other type of digital signal feed (DeSimone, column 1, lines 26-34).

- <Claim 16>

The environment of claim 11, wherein the routing modules further support a point-to-multipoint distributed communications model between clients (DeSimone, column 5, lines 52-57).

- <Claim 17>

The environment of claim 11, wherein: at least some of the client applications run on host platforms (Waters, column 17, lines 63-67); and the routing modules further support conventional internet packet routing among the hosts (Waters, column 19, lines 7-9).

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- <Claim 18>

The environment of claim 11, wherein the routing modules further support one or more conventional multicast protocols (DeSimone, column 6, lines 26-29).

- <Claim 19>

The environment of claim 11, wherein the application communicates internal state changes into the federation through an API (DeSimone, column 2, lines 15-20).

- <Claim 20>

The environment of claim 11, wherein the message culling includes message omission, rerouting, and other quality-of-service modifications (Waters, column 10, lines 36-50).

- <Claim 21>

The environment of claim 11, wherein the lobby manager is further operative to validate the client application for compatibility with the federation and download data to correct for deficiencies (DeSimone, column 7, line 59 through column 8, line 12).

- <Claim 22>

The environment of claim 11, wherein the lobby manager is further operative to simultaneously process multiple federations (DeSimone, column 3, lines 27-36).

- <Claim 23>

The environment of claim 22, wherein the federations communicate through multicast or replicated unicast protocols (DeSimone, column 3, lines 27-36).

Since the combination of DeSimone and Waters discloses all of the above limitations, claims 7-9, 11, and 14-23 are rejected.

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14. Claims 2, 10, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of DeSimone and Waters, as applied above, further in view of Lambright et al. (U.S. Patent Number 6,015,348), hereinafter referred to as Lambright.

15. The combination of DeSimone and Waters disclosed a multicast capable IP network maintaining client terminals on a multimedia conference where the bandwidth loading of a multi-user application is reduced. In an analogous art, Lambright disclosed a distributed communication network for implementing a multi-player computer game. Just as with the inventions of DeSimone and Waters, Lambright focuses on a communication network for multi-user applications.

16. Concerning claims 2 and 10, the combination of DeSimone and Waters did not explicitly state the use of an application which was a simulation or game, or a system which would involve thousands of participants. However, Lambright does state that his multi-user application is a game and that it can be implemented for thousands of participants. In these areas Lambright's relation to the present application has been admitted by the applicant. Further, since the inventions of DeSimone, Waters, and Lambright encompass the same field of endeavor, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of DeSimone and Waters by adding the use of an application which was a simulation or game and the ability to reach thousands of participants as provided by Lambright. This would make sense because it would be an ideal utilization of the network for a different purpose, specifically online gaming.

17. Thereby, the combination of DeSimone, Waters, and Lambright discloses:

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- <Claim 2>

The environment of claim 1, wherein the application is a distributed simulation or game (Lambright, column 1, lines 14-21).

- <Claim 10>

The environment of claim 1, wherein the application is a massive groupware application involving thousands of world-wide participants (Lambright, column 1, line 66 through column 2, line 2).

- <Claim 12>

The environment of claim 11, wherein the application is a distributed simulation (Lambright, column 1, lines 27-33).

- <Claim 13>

The environment of claim 11, wherein the application is a game (Lambright, column 1, lines 14-21).

Since the combination of DeSimone, Waters, and Lambright discloses all of the above limitations, claims 2, 10, 12, and 13 are rejected.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Metke et al. (U.S. Patent Number 6,315,668) disclosed a system for networking video games.
- Tanskanen (U.S. Patent Number 6,579,184) disclosed a multi-player video game server.

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- Erramilli, A. and Singh, R.P., "A Reliable and Efficient Multicast Protocol for Broadband Broadcast Networks," disclosed a data transfer protocol for multicast applications.
- Macedonia, Michael R., Brutzman, Donald P., Zyda, Michael J., Pratt, David R., Barham, Paul T., Falby, John, and Locke, John, "NPSNET: A Multi-Player 3D Virtual Environment Over the Internet," disclosed a 3D virtual environment for multi-player participation over the Internet.
- Fullford, Deb, "Distributed Interactive Simulation: It's Past, Present, and Future," disclosed an overview of Distributed Interactive Simulation (DIS).
- Jia, Xiaohua, "A Distributed Algorithm of Delay-Bounded Multicast Routing for Multimedia Applications in Wide Area Networks," disclosed an algorithm for multicast routing.
- Saar, Kurt, "VIRTUS: A Collaborative Multi-User Platform," disclosed an overview of distributed virtual environments.
- Holbrook, Hugh W. and Cheriton, David R., "IP Multicast Channels: EXPRESS Support for Large-scale Single-source Applications," disclosed an extension to IP multicast to support the channel model of multicast.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor Lesniewski whose telephone number is 703-308-6165.

The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 703-308-6662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Victor Lesniewski
Patent Examiner
Group Art Unit 2155



HOSAIN ALAM
SUPERVISORY PATENT EXAMINER